



Beef Cattle Library

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Basic Nutrient Requirements of Beef Cattle ¹

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Appendix 1 – Growing and Finishing Cattle

Table 1. Nutrient requirements for medium frame steer calves.

Weight (lb)	Daily Gain (lb)	DM Intake (lb)	Protein (%)	Protein (lb)	TDN (%)	TDN (lb)	Ca (%)	P (%)
300	0.5	7.8	9.6	0.75	54	4.2	0.27	0.18
	1	8.4	11.4	0.95	58.5	4.9	0.38	0.21
	1.5	8.7	13.2	1.14	63	5.5	0.47	0.25
	2	8.9	14.8	1.32	67.5	6	0.56	0.26
	2.5	8.9	16.7	1.48	73.5	6.5	0.68	0.3
	3	8	19.9	1.6	85	6.8	1.13	0.47
400	0.5	9.7	8.9	0.87	54	5.2	0.27	0.18
	1	10.4	10.3	1.06	58.5	6.1	0.38	0.21
	1.5	10.8	11.5	1.24	63	6.8	0.47	0.25
	2	11	12.7	1.41	67.5	7.4	0.56	0.26
	2.5	11	14.2	1.56	73.5	8.1	0.68	0.3
	3	10	16.6	1.65	85	8.5	0.86	0.37
500	0.5	11.5	8.5	0.98	54	6.2	0.25	0.17
	1	12.3	9.5	1.16	58.5	7.2	0.32	0.2
	1.5	12.8	10.5	1.33	63	8.1	0.4	0.22
	2	13.1	11.4	1.49	67.5	8.8	0.47	0.24
	2.5	13	12.5	1.63	73.5	9.6	0.56	0.27
	3	11.8	14.4	1.69	85	10	0.69	0.32

1. This document is part of the Oregon State University – Beef Cattle Library. Published in June 2011. Prior to acceptance, this document was anonymously reviewed by two experts in the area. For further information, please visit the Beef Cattle Sciences website at <http://beefcattle.ans.oregonstate.edu>.

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Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
600	0.5	13.2	8.2	1.08	54	7.1	0.23	0.18
	1	14.1	9	1.26	58.5	8.3	0.28	0.19
	1.5	14.7	9.8	1.42	63	9.3	0.35	0.21
	2	15	10.5	1.57	67.5	10.1	0.4	0.22
	2.5	14.9	11.4	1.69	73.5	11	0.46	0.24
	3	13.5	12.9	1.73	85	11.5	0.57	0.29
700	0.5	14.8	7.9	1.18	54	8	0.22	0.18
	1	15.8	8.6	1.35	58.5	9.2	0.27	0.18
	1.5	16.5	9.2	1.5	63	10.4	0.31	0.2
	2	16.8	9.8	1.65	67.5	11.3	0.34	0.21
	2.5	16.7	10.5	1.75	73.5	12.3	0.4	0.22
	3	15.2	11.7	1.77	85	12.9	0.49	0.26
800	0.5	16.4	7.7	1.27	54	8.9	0.22	0.17
	1	17.5	8.3	1.44	58.5	10.2	0.24	0.19
	1.5	18.2	8.8	1.58	63	11.5	0.28	0.19
	2	18.6	9.2	1.72	67.5	12.6	0.31	0.2
	2.5	18.5	9.8	1.81	73.5	13.6	0.35	0.21
	3	16.8	10.8	1.81	85	14.3	0.42	0.25
900	0.5	17.9	7.6	1.36	54	9.7	0.21	0.18
	1	19.1	8	1.52	58.5	11.2	0.23	0.18
	1.5	19.9	8.4	1.66	63	12.5	0.25	0.19
	2	20.3	8.8	1.79	67.5	13.7	0.28	0.2
	2.5	20.2	9.3	1.87	73.5	14.8	0.31	0.2
	3	18.3	10.1	1.85	85	15.6	0.37	0.23
1000	0.5	19.3	7.5	1.45	54	10.4	0.21	0.18
	1	20.7	7.8	1.6	58.5	12.1	0.21	0.18
	1.5	21.5	8.1	1.74	63	13.5	0.24	0.18
	2	22	8.4	1.85	67.5	14.9	0.25	0.19
	2.5	21.9	8.8	1.92	73.5	16.1	0.27	0.19
	3	19.8	9.5	1.88	85	16.8	0.32	0.22

Table 2. Nutrient requirements for large-frame steer calves and compensating medium-frame yearling steers.

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
300	0.5	8.2	9.5	0.77	52.5	4.3	0.3	0.19
	1	8.7	11.3	0.99	56	4.9	0.46	0.23
	1.5	9.1	12.9	1.19	59.5	5.4	0.58	0.27
	2	9.4	14.6	1.37	63.5	6	0.7	0.3
	2.5	9.6	16.3	1.55	67.5	6.5	0.85	0.34
	3	9.6	18	1.73	72	6.9	0.99	0.39
	3.5	9.3	20.3	1.88	78.5	7.3	1.16	0.45
400	0.5	10.1	8.9	0.89	52.5	5.3	0.26	0.17
	1	10.8	10.2	1.1	56	6	0.37	0.2
	1.5	11.3	11.4	1.3	59.5	6.7	0.47	0.23
	2	11.7	12.7	1.47	63.5	7.4	0.57	0.26
	2.5	11.9	13.9	1.64	67.5	8	0.65	0.3
	3	11.9	15.2	1.81	72	8.6	0.76	0.33
	3.5	11.5	16.9	1.94	78.5	9	0.9	0.36
500	0.5	12	8.5	1	52.5	6.3	0.24	0.17
	1	12.8	9.5	1.21	56	7.2	0.33	0.19
	1.5	13.4	10.4	1.4	59.5	8	0.39	0.21
	2	13.8	11.4	1.57	63.5	8.8	0.46	0.24
	2.5	14	12.4	1.73	67.5	9.5	0.55	0.25
	3	14	13.4	1.88	72	10.1	0.63	0.28
	3.5	13.6	14.7	2	78.5	10.7	0.73	0.32
600	0.5	13.8	8.2	1.11	52.5	7.2	0.22	0.18
	1	14.6	9	1.31	56	8.2	0.29	0.18
	1.5	15.3	9.7	1.5	59.5	9.1	0.35	0.2
	2	15.8	10.5	1.66	63.5	10	0.4	0.22
	2.5	16.1	11.3	1.81	67.5	10.9	0.47	0.23
	3	16.1	12.1	1.95	72	11.6	0.52	0.26
	3.5	15.6	13.2	2.05	78.5	12.2	0.61	0.28
700	0.5	15.4	7.9	1.21	52.5	8.1	0.21	0.17
	1	16.4	8.6	1.41	56	9.2	0.27	0.19
	1.5	17.2	9.2	1.59	59.5	10.2	0.31	0.19
	2	17.8	9.8	1.74	63.5	11.3	0.36	0.21
	2.5	18	10.5	1.88	67.5	12.2	0.4	0.22
	3	18	11.1	2.01	72	13	0.45	0.23
	3.5	17.5	12	2.1	78.5	13.7	0.52	0.26

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
800	0.5	17.1	7.7	1.31	52.5	8.9	0.21	0.18
	1	18.2	8.3	1.51	56	10.2	0.24	0.18
	1.5	19	8.8	1.68	59.5	11.3	0.28	0.19
	2	19.6	9.3	1.82	63.5	12.4	0.32	0.2
	2.5	19.9	9.8	1.96	67.5	13.4	0.35	0.21
	3	19.9	10.4	2.07	72	14.3	0.4	0.22
	3.5	19.3	11.1	2.15	78.5	15.2	0.45	0.24
900	0.5	18.6	7.6	1.4	52.5	9.8	0.2	0.18
	1	19.8	8	1.6	56	11.2	0.23	0.18
	1.5	20.8	8.5	1.77	59.5	12.4	0.27	0.18
	2	21.4	8.9	1.9	63.5	13.6	0.29	0.2
	2.5	21.8	9.3	2.03	67.5	14.7	0.31	0.2
	3	21.7	9.8	2.13	72	15.6	0.36	0.21
	3.5	21.1	10.4	2.19	78.5	16.6	0.4	0.23
1000	0.5	20.2	7.5	1.49	52.5	10.6	0.2	0.17
	1	21.5	7.8	1.69	56	12	0.23	0.17
	1.5	22.5	8.2	1.85	59.5	13.4	0.25	0.18
	2	23.2	8.6	1.98	63.5	14.7	0.27	0.18
	2.5	23.6	8.9	2.09	67.5	15.9	0.29	0.19
	3	23.6	9.3	2.19	72	17	0.32	0.2
	3.5	22.8	9.8	2.24	78.5	17.9	0.35	0.21
1100	0.5	21.7	7.4	1.58	52.5	11.4	0.19	0.18
	1	23.1	7.7	1.77	56	12.9	0.21	0.18
	1.5	24.1	8	1.93	59.5	14.3	0.23	0.18
	2	24.9	8.3	2.05	63.5	15.8	0.25	0.18
	2.5	25.3	8.5	2.16	67.5	17.1	0.26	0.18
	3	25.3	8.9	2.25	72	18.2	0.29	0.19
	3.5	24.5	9.3	2.28	78.5	19.2	0.32	0.21

Table 3. Nutrient requirements for medium-frame bulls.

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
300	0.5	7.8	9.7	0.76	53.5	4.2	0.31	0.2
	1	8.3	11.6	0.96	57.5	4.8	0.48	0.24
	1.5	8.6	13.4	1.15	61.5	5.3	0.62	0.28
	2	8.8	15.2	1.34	65.5	5.8	0.75	0.33
	2.5	8.9	17	1.52	70	6.2	0.92	0.37
	3	8.7	19.3	1.68	76.5	6.7	1.09	0.43
400	0.5	9.6	9	0.87	53.5	5.1	0.28	0.18
	1	10.3	10.4	1.07	57.5	5.9	0.39	0.21
	1.5	10.7	11.8	1.26	61.5	6.6	0.49	0.25
	2	11	13.1	1.44	65.5	7.2	0.6	0.28
	2.5	11.1	14.4	1.6	70	7.8	0.7	0.32
	3	10.8	16.1	1.74	76.5	8.3	0.84	0.37
500	0.5	11.4	8.6	0.76	53.5	6.1	0.25	0.17
	1	12.1	9.7	0.96	57.5	7	0.35	0.2
	1.5	12.7	10.7	1.15	61.5	7.8	0.42	0.23
	2	13	11.7	1.34	65.5	8.5	0.49	0.25
	2.5	13.1	12.8	1.52	70	9.2	0.59	0.27
	3	12.8	14.1	1.68	76.5	9.8	0.69	0.31
600	0.5	13.1	8.3	1.08	53.5	7	0.24	0.19
	1	13.9	9.2	1.27	57.5	8	0.3	0.19
	1.5	14.5	10	1.44	61.5	8.9	0.36	0.21
	2	14.9	10.8	1.61	65.5	9.8	0.43	0.24
	2.5	15	11.6	1.75	70	10.5	0.5	0.25
	3	14.7	12.7	1.86	76.5	11.2	0.57	0.29
700	0.5	14.7	8	1.18	53.5	7.9	0.23	0.18
	1	15.6	8.8	1.37	57.5	9	0.28	0.2
	1.5	16.3	9.4	1.53	61.5	10	0.32	0.2
	2	16.7	10.1	1.69	65.5	10.9	0.38	0.22
	2.5	16.8	10.8	1.82	70	11.8	0.43	0.24
	3	16.5	11.7	1.92	76.5	12.6	0.49	0.25
800	0.5	16.2	7.8	1.27	53.5	8.7	0.22	0.19
	1	17.3	8.4	1.45	57.5	9.9	0.25	0.19
	1.5	18	9	1.61	61.5	11.1	0.29	0.2
	2	18.5	9.5	1.76	65.5	12.1	0.33	0.21
	2.5	18.6	10.1	1.89	70	13	0.38	0.23
	3	18.2	10.8	1.97	76.5	13.9	0.44	0.24

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
900	0.5	17.7	7.7	1.36	53.5	9.5	0.21	0.19
	1	18.9	8.2	1.54	57.5	10.9	0.25	0.19
	1.5	19.7	8.6	1.69	61.5	12.1	0.28	0.19
	2	20.2	9.1	1.83	65.5	13.2	0.31	0.21
	2.5	20.3	9.6	1.95	70	14.2	0.34	0.22
	3	19.9	10.2	2.02	76.5	15.2	0.39	0.23
1000	0.5	19.2	7.5	1.45	53.5	10.3	0.21	0.18
	1	20.4	8	1.62	57.5	11.7	0.24	0.18
	1.5	21.3	8.4	1.77	61.5	13.1	0.26	0.19
	2	21.8	8.7	1.9	65.5	14.3	0.28	0.19
	2.5	22	9.1	2.01	70	15.4	0.31	0.2
	3	21.5	9.6	2.07	76.5	16.4	0.35	0.22
1100	0.5	20.6	7.4	1.54	53.5	11	0.2	0.19
	1	21.9	7.8	1.7	57.5	12.6	0.22	0.19
	1.5	22.9	8.1	1.85	61.5	14.1	0.24	0.19
	2	23.4	8.4	1.97	65.5	15.3	0.26	0.19
	2.5	23.6	8.7	2.07	70	16.5	0.28	0.2
	3	23.1	9.2	2.11	76.5	17.7	0.32	0.21

Table 4. Nutrient requirements for large-frame bull calves and compensating large-frame yearling steers.

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
300	0.5	7.9	9.7	0.77	52.5	4.1	0.31	0.2
	1	8.4	11.7	0.98	56	4.7	0.47	0.24
	1.5	8.8	13.5	1.18	59.5	5.2	0.63	0.28
	2	9	15.1	1.38	62.5	5.6	0.76	0.32
	2.5	9.2	17	1.56	66.5	6.1	0.91	0.36
	3	9.2	18.8	1.74	70.5	6.5	1.08	0.43
	3.5	9.1	20.9	1.91	75.5	6.9	1.24	0.48
	4	8.2	24.7	2.04	86	7.1	1.53	0.59
400	0.5	9.8	9	0.89	52.5	5.1	0.27	0.18
	1	10.4	10.5	1.09	56	5.8	0.4	0.21
	1.5	10.9	11.9	1.29	59.5	6.5	0.51	0.24
	2	11.2	13.1	1.48	62.5	7	0.61	0.28
	2.5	11.4	14.5	1.65	66.5	7.6	0.72	0.31
	3	11.5	15.9	1.82	70.5	8.1	0.82	0.35
	3.5	11.3	17.5	1.98	75.5	8.5	0.96	0.39
	4	10.2	20.3	2.08	86	8.8	1.19	0.48
500	0.5	11.6	8.6	1	52.5	6.1	0.25	0.19
	1	12.3	9.8	1.2	56	6.9	0.36	0.21
	1.5	12.9	10.9	1.39	59.5	7.7	0.43	0.22
	2	13.2	11.8	1.58	62.5	8.3	0.52	0.25
	2.5	13.5	12.9	1.74	66.5	9	0.59	0.28
	3	13.6	14	1.9	70.5	9.6	0.68	0.31
	3.5	13.4	15.3	2.05	75.5	10.1	0.77	0.35
	4	12	17.5	2.13	86	10.3	0.97	0.4
600	0.5	13.3	8.3	1.1	52.5	7	0.23	0.18
	1	14.1	9.2	1.3	56	7.9	0.31	0.2
	1.5	14.8	10.1	1.48	59.5	8.8	0.37	0.21
	2	15.2	10.9	1.67	62.5	9.5	0.44	0.23
	2.5	15.5	11.8	1.82	66.5	10.3	0.51	0.26
	3	15.5	12.7	1.97	70.5	10.9	0.58	0.27
	3.5	15.3	13.7	2.11	75.5	11.6	0.66	0.3
	4	13.8	15.6	2.16	86	11.9	0.81	0.37

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
700	0.5	14.9	8	1.2	52.5	7.8	0.22	0.18
	1	15.9	8.8	1.4	56	8.9	0.29	0.19
	1.5	16.6	9.6	1.57	59.5	9.9	0.35	0.21
	2	17	10.2	1.75	62.5	10.6	0.39	0.22
	2.5	17.4	11	1.9	66.5	11.6	0.44	0.24
	3	17.5	11.7	2.04	70.5	12.3	0.5	0.25
	3.5	17.2	12.5	2.16	75.5	12.3	0.5	0.25
	4	15.5	14.1	2.2	86	13.3	0.7	0.33
800	0.5	16.5	7.9	1.3	52.5	8.7	0.21	0.19
	1	17.5	8.5	1.49	56	9.8	0.26	0.19
	1.5	18.3	9.1	1.66	59.5	10.9	0.31	0.2
	2	18.8	9.7	1.84	62.5	11.8	0.35	0.21
	2.5	19.2	10.3	1.97	66.5	12.8	0.4	0.23
	3	19.3	10.9	2.11	70.5	13.6	0.45	0.24
	3.5	19	11.6	2.22	75.5	14.3	0.5	0.26
	4	17.1	13	2.24	86	14.7	0.61	0.31
900	0.5	18	7.7	1.39	52.5	9.5	0.22	0.18
	1	19.2	8.3	1.58	56	10.8	0.25	0.18
	1.5	20	8.8	1.74	59.5	11.9	0.29	0.2
	2	20.6	9.2	1.92	62.5	12.9	0.32	0.2
	2.5	21	9.8	2.04	66.5	14	0.36	0.21
	3	21.1	10.3	2.17	70.5	14.9	0.4	0.23
	3.5	20.8	10.9	2.27	75.5	15.7	0.45	0.24
	4	18.7	12.1	2.27	86	16.1	0.53	0.28
1000	0.5	19.5	7.6	1.48	52.5	10.2	0.21	0.18
	1	20.7	8.1	1.66	56	11.6	0.25	0.19
	1.5	21.7	8.5	1.83	59.5	12.9	0.27	0.19
	2	22.3	8.9	1.99	62.5	13.9	0.3	0.2
	2.5	22.7	9.3	2.11	66.5	15.1	0.33	0.2
	3	22.8	9.7	2.23	70.5	16.1	0.36	0.21
	3.5	22.5	10.3	2.32	75.5	17	0.4	0.24
	4	20.2	11.3	2.3	86	17.4	0.48	0.27

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
1100	0.5	20.9	7.5	1.57	52.5	11	0.21	0.19
	1	22.3	7.9	1.75	56	12.5	0.23	0.19
	1.5	23.3	8.3	1.91	59.5	13.9	0.26	0.19
	2	23.9	8.6	2.07	62.5	14.9	0.28	0.19
	2.5	24.2	9	2.18	66.5	16.1	0.3	0.2
	3	24.5	9.3	2.29	70.5	17.3	0.32	0.21
	3.5	24.1	9.8	2.37	75.5	18.2	0.36	0.22
	4	21.7	10.7	2.33	86	18.7	0.43	0.25

Table 5. Nutrient requirements for medium-frame heifer calves.

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
300	0.5	7.5	9.6	0.73	56	4.2	0.29	0.21
	1	8	11.4	0.91	62	5	0.44	0.22
	1.5	8.2	13.1	1.08	68.5	5.6	0.59	0.27
	2	8	15.1	1.22	77	6.2	0.74	0.33
400	0.5	9.3	8.9	0.84	56	5.2	0.26	0.19
	1	9.9	10.2	1.01	62	6.1	0.36	0.2
	1.5	10.2	11.4	1.17	68.5	7	0.45	0.24
	2	10	12.9	1.29	77	7.7	0.57	0.29
500	0.5	11	8.5	0.94	56	6.2	0.24	0.18
	1	11.8	9.4	1.11	62	7.3	0.3	0.21
	1.5	12.1	10.3	1.25	68.5	8.4	0.38	0.22
	2	11.8	11.4	1.35	77	9.1	0.45	0.24
600	0.5	12.6	8.1	1.04	56	7.1	0.23	0.18
	1	13.5	8.8	1.19	62	8.4	0.28	0.2
	1.5	13.8	9.5	1.32	68.5	9.5	0.32	0.21
	2	13.5	10.4	1.41	77	10.4	0.38	0.23
700	0.5	14.1	7.9	1.13	56	8	0.22	0.19
	1	15.1	8.4	1.28	62	9.4	0.25	0.19
	1.5	15.5	9	1.39	68.5	10.6	0.28	0.2
	2	15.2	9.6	1.46	77	11.7	0.32	0.22
800	0.5	15.6	7.7	1.22	56	8.7	0.21	0.18
	1	16.7	8.1	1.36	62	10.4	0.22	0.18
	1.5	17.2	8.5	1.46	68.5	11.8	0.24	0.19
	2	16.8	9	1.51	77	12.9	0.28	0.2
900	0.5	17.1	7.5	1.31	56	9.6	0.21	0.18
	1	18.3	7.8	1.44	62	11.3	0.22	0.18
	1.5	18.8	8.1	1.53	68.5	12.9	0.22	0.19
	2	18.3	8.5	1.56	77	14.1	0.25	0.19
1000	0.5	18.5	7.4	1.39	56	10.4	0.2	0.19
	1	19.8	7.6	1.51	62	12.3	0.2	0.18
	1.5	20.3	7.8	1.59	68.5	13.9	0.21	0.18
	2	19.8	8.1	1.61	77	15.2	0.22	0.19

Table 6. Nutrient requirements for large-frame heifer calves and compensating medium-frame yearling heifers.

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
300	0.5	7.8	9.5	0.76	54	4.2	0.31	0.2
	1	8.4	11.3	0.95	59	5	0.45	0.24
	1.5	8.8	13	1.13	64	5.6	0.58	0.25
	2	8.9	14.6	1.3	69.5	6.2	0.69	0.3
	2.5	8.7	16.7	1.45	77	7	0.86	0.35
400	0.5	9.7	8.9	0.87	54	5.2	0.27	0.18
	1	10.5	10.1	1.06	59	6.2	0.36	0.21
	1.5	10.9	11.3	1.23	64	7	0.45	0.22
	2	11.1	12.6	1.38	69.5	7.7	0.54	0.26
	2.5	10.8	14.1	1.51	77	8.3	0.65	0.31
500	0.5	11.5	8.4	0.98	54	6.1	0.23	0.17
	1	12.4	9.4	1.16	59	7.3	0.3	0.2
	1.5	12.9	10.3	1.32	64	8.3	0.38	0.2
	2	13.1	11.2	1.46	69.5	9.1	0.44	0.24
	2.5	12.8	12.4	1.57	77	10	0.53	0.26
600	0.5	13.2	8.1	1.08	54	7.1	0.22	0.18
	1	14.1	8.9	1.25	59	8.3	0.28	0.19
	1.5	14.8	9.6	1.41	64	9.5	0.33	0.19
	2	15	10.3	1.54	69.5	10.4	0.38	0.22
	2.5	14.6	11.2	1.63	77	11.2	0.44	0.24
700	0.5	14.8	7.9	1.18	54	8	0.21	0.18
	1	15.9	8.5	1.34	59	9.4	0.25	0.18
	1.5	16.6	9	1.49	64	10.6	0.29	0.19
	2	16.8	9.6	1.61	69.5	11.7	0.33	0.2
	2.5	16.4	10.3	1.68	77	12.6	0.38	0.22
800	0.5	16.4	7.7	1.27	54	8.9	0.2	0.17
	1	17.6	8.2	1.43	59	10.4	0.24	0.18
	1.5	18.3	8.6	1.57	64	11.7	0.25	0.18
	2	18.6	9	1.67	69.5	12.9	0.28	0.19
	2.5	18.1	9.6	1.74	77	13.9	0.33	0.21
900	0.5	17.8	7.5	1.36	54	9.6	0.2	0.18
	1	19.2	7.9	1.52	59	11.3	0.24	0.18
	1.5	20	8.2	1.64	64	12.8	0.25	0.18
	2	20.3	8.6	1.74	69.5	14.1	0.28	0.18
	2.5	19.8	9	1.78	77	15.2	0.33	0.2

Weight <i>(lb)</i>	Daily Gain <i>(lb)</i>	DM Intake <i>(lb)</i>	Protein <i>(%)</i>	Protein <i>(lb)</i>	TDN <i>(%)</i>	TDN <i>(lb)</i>	Ca <i>(%)</i>	P <i>(%)</i>
1000	0.5	19.3	7.4	1.45	54	10.4	0.19	0.18
	1	20.8	7.7	1.6	59	12.3	0.21	0.18
	1.5	21.7	8	1.71	64	13.9	0.21	0.18
	2	22	8.2	1.8	69.5	15.3	0.23	0.18
	2.5	21.5	8.6	1.83	77	16.6	0.25	0.18
1100	0.5	20.8	7.3	1.54	54	11.2	0.19	0.18
	1	22.3	7.5	1.68	59	13.2	0.2	0.18
	1.5	23.3	7.7	1.78	64	14.9	0.2	0.18
	2	23.6	7.9	1.86	69.5	16.4	0.21	0.18
	2.5	23.1	8.2	1.88	77	17.8	0.22	0.18